## Congress of the United States Washington, DC 20510

May 10, 2012

Hon. Michael B. Donley Secretary of the Air Force 1670 Air Force Pentagon Washington, DC 20330

Dear Secretary Donley:

We are writing to share our continued concerns for the health and safety of America's F-22 Raptor pilots.

As you are aware, Captain Joshua Wilson and Major Jeremy Gordon, under the protection of the Military Whistleblower Act, expressed their concerns with the F-22 Raptor. The reports of hypoxia-like symptoms experienced by many F-22 pilots are deeply troubling, and we appreciate the attention to this issue that has been demonstrated to date by the Air Force.

After meeting with these pilots, and having conversations with many other knowledgeable individuals, we would recommend an immediate, confidential and anonymous safety survey of all active duty and reservist F-22 crews, pilots, and flight surgeons to definitively document the scope and frequency of these hypoxia-like incidents. It is our view that such a survey should be initiated within 10 days, and our offices would expect to receive timely updates both on the survey methodology and the results shortly thereafter.

As part of such a survey, the Air Force should clearly communicate to all F-22 pilots, maintenance crews, and flight surgeons that there will be no reprisals against anyone who comes forward with information. We suggest that you consider using a toll-free hotline to support anonymous dialogue, and consider broad outreach to maximize awareness of the availability of this hotline. Such a hotline should be staffed by trained individuals.

In addition, we urge you to consider establishing a high-level task force to work with the Department of Navy, the NASA Engineering and Safety Center (NESC) and other qualified and independent research labs to identify the root causes of the F-22 safety issues and to explore potential solutions. The safety of our pilots, the importance of their mission, and the safety and well-being of residents in our military communities are too important to do anything less.

Additionally, we would appreciate your expeditious written responses to the following:

1. What were the results from any previous Air Force Culture Assessment Survey Tool (AFCAST) Safety Surveys provided to F-22 pilots or maintenance crews?

- 2. Has the Air Force initiated any other surveys, either formally or informally, in relation to hypoxia-like symptoms experienced by pilots or maintenance crews? If so, were these surveys completed?
- 3. Have any other pilots expressed to the Air Force their desire to not fly due to hypoxialike symptoms? If so, how many?
- 4. Boeing presented two briefs to the Air Force regarding implementation of the M2A1 filter in the F-22 Raptor. Has Boeing asserted a claim against the release of such reports based on the disclosure of proprietary information? If not, when will the Air Force make those two briefings available?
- 5. Are you aware of any remaining pending disciplinary action against Capt. Joshua Wilson or Major Jeremy Gordon? If so, what is the justification for such disciplinary action?
- 6. It appears that the mitigation measures have been ineffective in preventing hypoxia-like incidents and the On-Board Oxygen Generating System (OBOGS) may not be producing enough oxygen for pilots during their flights. What mitigation measures has the Air Force taken to increase the amount and quality of oxygen delivered to the pilots?
- 7. If it is true that the incidence of hypoxia among Air Force F-22 pilots is 18%, how does that compare historically to other types and models of aircraft? What level of hypoxic incidents does the Air Force consider acceptable?
- 8. What has testing shown about the potential liberation of charcoal and other ingredients from the C2A1 filter that may be blown through the system and into the pilot's oxygen mask? Specifically, what concern do you have that the particle sizes have been shown, in testing, to be liberated from the filter at a size in the three-micron range, and what level of concern do you have regarding the long-term pulmonary and respiratory health of the pilots?
- 9. How many instances have there been of pilots or Air Force leadership at the squadron or wing level requesting a "stand down" due to concerns with the filter and other continued physiological incidents? What safety measures were added after each stand down to ensure the safety of the pilots?
- 10. What were the results of safety surveys administered by the wings at Tyndall Air Force Base in Florida and Elmendorf Air Force Base in Alaska? How many previously unreported incidents were identified as a result of those two surveys? How many maintainers have reported incidents during ground runs? Are these numbers included in the incident rate?
- 11. What is the Navy Experimental Dive Unit's position on the F-22 OBOGS? Do they believe the system delivers enough oxygen to the pilots, especially in high workload environments including high G maneuvering?
- 12. What metrics did the Air Force use when it returned the F-22 to flight status? What was the rationale for clearing the plane to fly, and what systems were repaired or modified to improve the air flow to pilots?

13. Are you aware of neurological symptoms reported by a large number of experienced F-22 pilots such as fatigue, headaches, persistent thirst, lack of coordination and coughing? If so, what is the Air Force's aeromedical plan to deal with these issues?

As members of Congress, we understand that the F-22 is a vital component of the Air Force mission for continued supremacy in air-to-air combat. Each of us want to see these problems addressed immediately so that the F-22 can continue in that role.

Thank you for your timely cooperation and written response on these important matters.

Sincerely,

Mark Warner
U.S. Senator

Virginia

Adam Kinzinger

Member of Congress

Eleventh District of Illinois